



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/584,063	06/22/2006	Yorihiko Wakayama	2006_0926A	8966
52349 7590 05/05/2010 WENDEROTH, LIND & PONACK L.L.P. 1030 15th Street, N.W. Suite 400 East Washington, DC 20005-1503				
EXAMINER				
YANG, ANDREW GUS				
ART UNIT		PAPER NUMBER		
2628				
NOTIFICATION DATE		DELIVERY MODE		
05/05/2010		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ddalecki@wenderoth.com

coa@wenderoth.com

**Advisory Action
Before the Filing of an Appeal Brief**

Application No.

10/584,063

Applicant(s)

WAKAYAMA, YORIIHIKO

Examiner

ANDREW YANG

Art Unit

2628

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 19 April 2010 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.
Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
(b) ☐ They raise the issue of new matter (see NOTE below);
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
The status of the claim(s) is (or will be) as follows:
Claim(s) allowed: _____.
Claim(s) objected to: _____.
Claim(s) rejected: 1-4-10 and 12-16.
Claim(s) withdrawn from consideration: 2-3 and 11.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:
See Continuation Sheet.
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). _____.
13. ☐ Other: _____.

/Ulka Chauhan/
Supervisory Patent Examiner, Art Unit 2628

With respect to claim 1, Dowdell discloses a three-dimensional shape drawing device (column 7, lines 47-58, system in Fig. 3) for drawing a three-dimensional shape using a Z-buffer algorithm, the three-dimensional shape drawing device comprising: a depth value calculation section for calculating a depth value of a pixel to be drawn (column 3, lines 52-54, computer calculates new z-value); a high order Z-buffer memory for retaining high order bits of a depth value of a pixel to be displayed as a front face, the depth value of the pixel to be displayed as the front face being from among depth values calculated by the depth value calculation section (column 4, lines 45-50, most significant bytes from z-buffer memory); a low order Z-buffer memory for retaining low order bits of the depth value of the pixel to be displayed as the front face (column 4, lines 45-50, middle significant and least significant bytes from z-buffer memory), a number of the low order bits retained in the low order Z-buffer memory being equal to or larger than a number of the high order bits retained in the high order Z-buffer memory (column 4, lines 45-50, middle significant bytes and least significant bytes comprise low order bits, which are equal to or greater than the number of high order bits from the most significant byte); a high order bit comparing section for reading the high order bits retained by the high order Z-buffer memory and comparing the read high order bits with high order bits of the depth value calculated by the depth value calculation section (column 4, lines 61-68, column 5, lines 1-14, comparator 114 in Fig. 1 compares old and new z-values); a low order bit comparing section for, when a result of a the comparing performed by the high order bit comparing section indicates that the high order bits of the depth value calculated by the depth value calculation section have a same value as the high order bits of the depth value of the pixel to be displayed as the front face retained by the high order Z-buffer memory, (i) reading the low order bits of the depth value of the pixel to be displayed as the front face and retained by the low order Z-buffer memory and (ii) comparing the read low order bits with low order bits of the depth value calculated by the depth value calculation section (column 5, lines 15-41, comparing lower order bits with high order bits are equal); a record update section for, when the result of the comparing performed by the high order bit comparing section indicates that a depth indicated by the high order bits of the depth value calculated by the depth value calculation section is shallower than a depth indicated by the high order bits of the depth value of the pixel to be displayed as the front face and retained by the high order Z-buffer memory, (i) updating the high order bits of the depth value of the pixel to be displayed as the front face and retained by the high order Z-buffer memory and (ii) the low order bits of the depth value of the pixel to be displayed as the front face and retained by the low order Z-buffer memory, by using the depth value calculated by the depth value calculation section (column 5, lines 5-10, updating the entire 24 bit new z-value), and for, when a result of a comparison performed by the low order bit comparing section indicates that a depth indicated by the low order bits of the depth value calculated by the depth value calculation section is shallower than a depth indicated by the low order bits of the depth value of the pixel to be displayed as the front face and retained by the low order Z-buffer memory, updating the low order bits of the depth value of the pixel to be displayed as the front face and retained by the low order Z-buffer memory by using the depth value calculated by the depth value calculation section (column 5, lines 19-23, column 5, lines 33-36); a pixel value calculation section for calculating a pixel value, which is information about the pixel to be drawn (column 8, lines 59-68, color update unit 314); and an image memory for retaining the pixel value calculated by the pixel value calculation section (column 9, lines 1-3, frame buffer 315), wherein the pixel value calculation section calculates the pixel value when the result of the comparing performed by the high order bit comparing section indicates that the depth indicated by the high order bits of the depth value calculated by the depth value calculation section is shallower than the depth indicated by the high order bits of the depth value of the pixel to be displayed as the front face and retained by the high order Z-buffer memory and when the result of the comparing performed by the low order bit comparing section indicates that the low order bits of the depth value calculated by the depth value calculation section have a same value as the low order bits of the depth value of the pixel to be displayed as the front face and retained by the low order Z-buffer memory (column 8, lines 12-21, as a result of whether or not the new z-value has replaced the old z-value, lines 59-62). By determining whether or not the new z-value has replaced the old z-value, Dowdell discloses calculating the pixel value based on the result of the high order bit and low order bit comparisons.

With respect to claim 12, Dowdell discloses the method as excuted by the system of claim 1; see rationale for rejection of claim 1.

Claims 9-10 are now rejected under U.S.C. 103(a) in view of Dowdell (U.S. Patent No. 5,301,263) upon entering the amendments to claims 9-10.

Continuation of 11, does NOT place the application in condition for allowance because: Applicant's arguments are not persuasive.

Applicant argues that Dowdell does not disclose or suggest all the features in amended claim 1, which now incorporates features claims 2-3. However, Dowdell discloses the pixel value calculation section calculates the pixel value when the result of the comparing performed by the high order bit comparing section indicates that the depth indicated by the high order bits of the depth value calculated by the depth value calculation section is shallower than the depth indicated by the high order bits of the depth value of the pixel to be displayed as the front face and retained by the high order Z-buffer memory and when the result of the comparing performed by the low order bit comparing section indicates that the low order bits of the depth value calculated by the depth value calculation section have a same value as the low order bits of the depth value of the pixel to be displayed as the front face and retained by the low order Z-buffer memory (column 8, lines 12-21, as a result of whether or not the new z-value has replaced the old z-value, lines 59-62). By determining whether or not the new z-value has replaced the old z-value, Dowdell discloses calculating the pixel value based on the result of the high order bit and low order bit comparisons.